

FIG.1

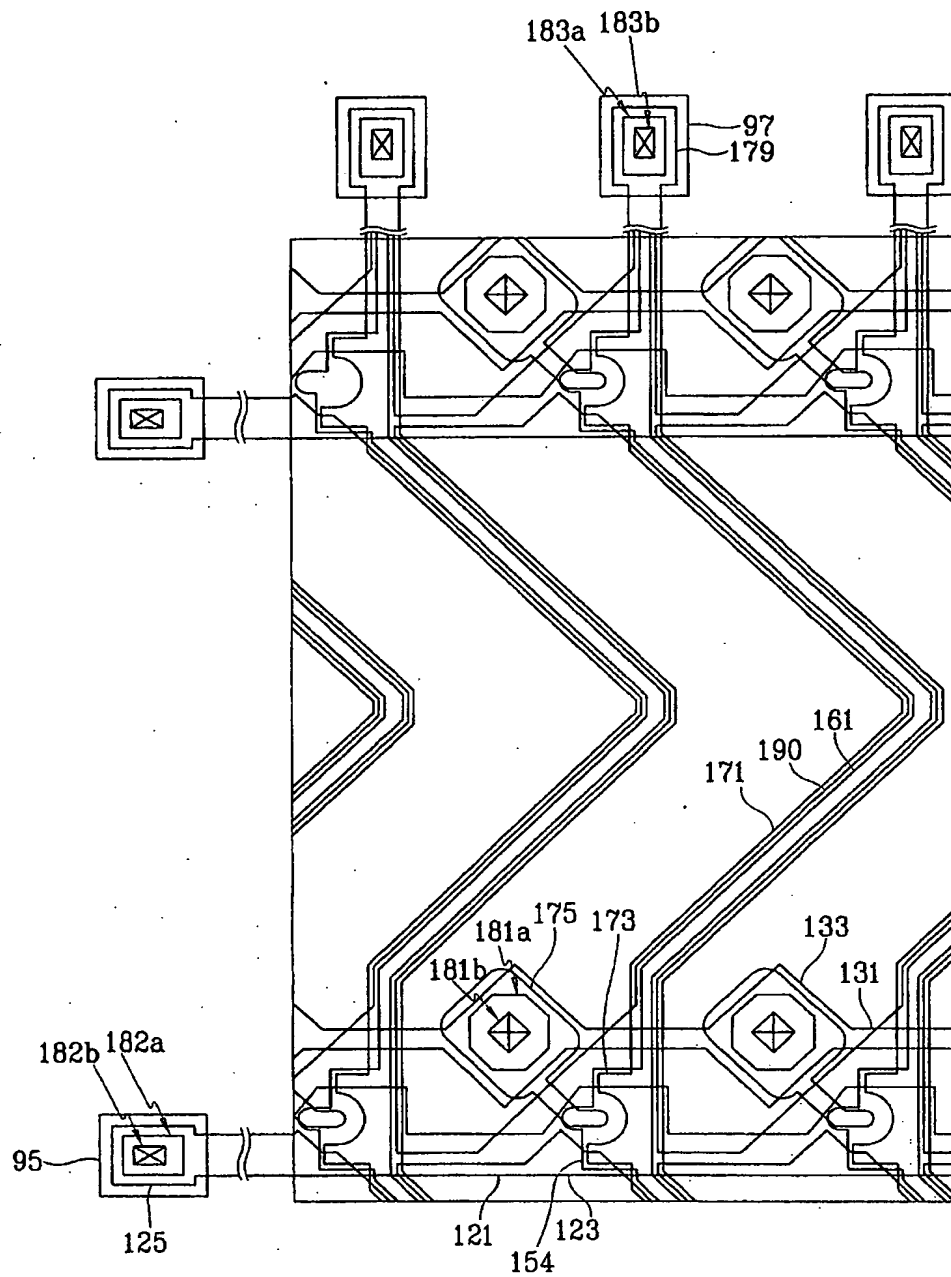


FIG.2

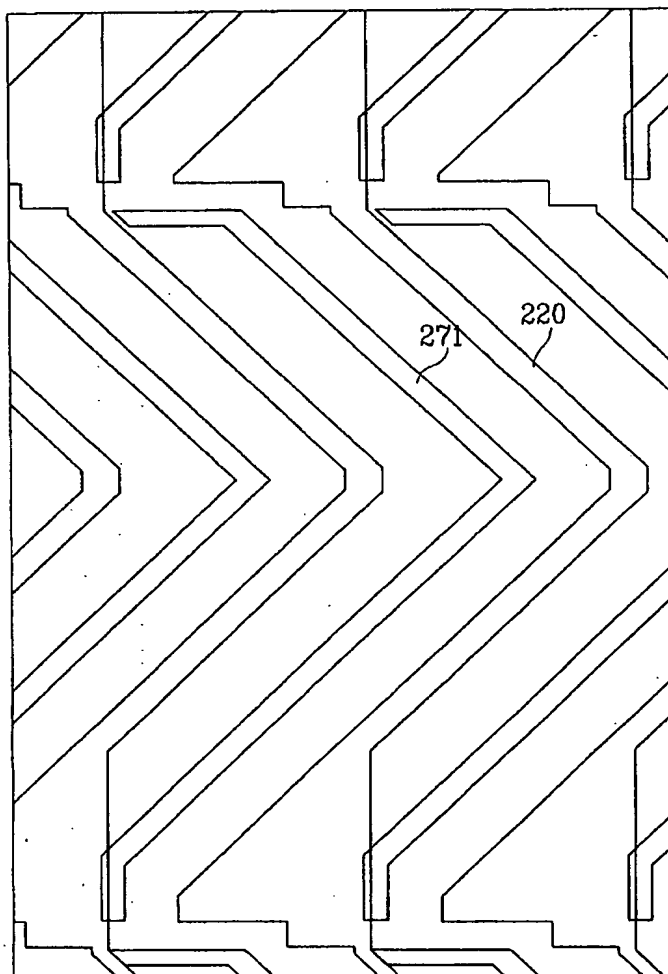
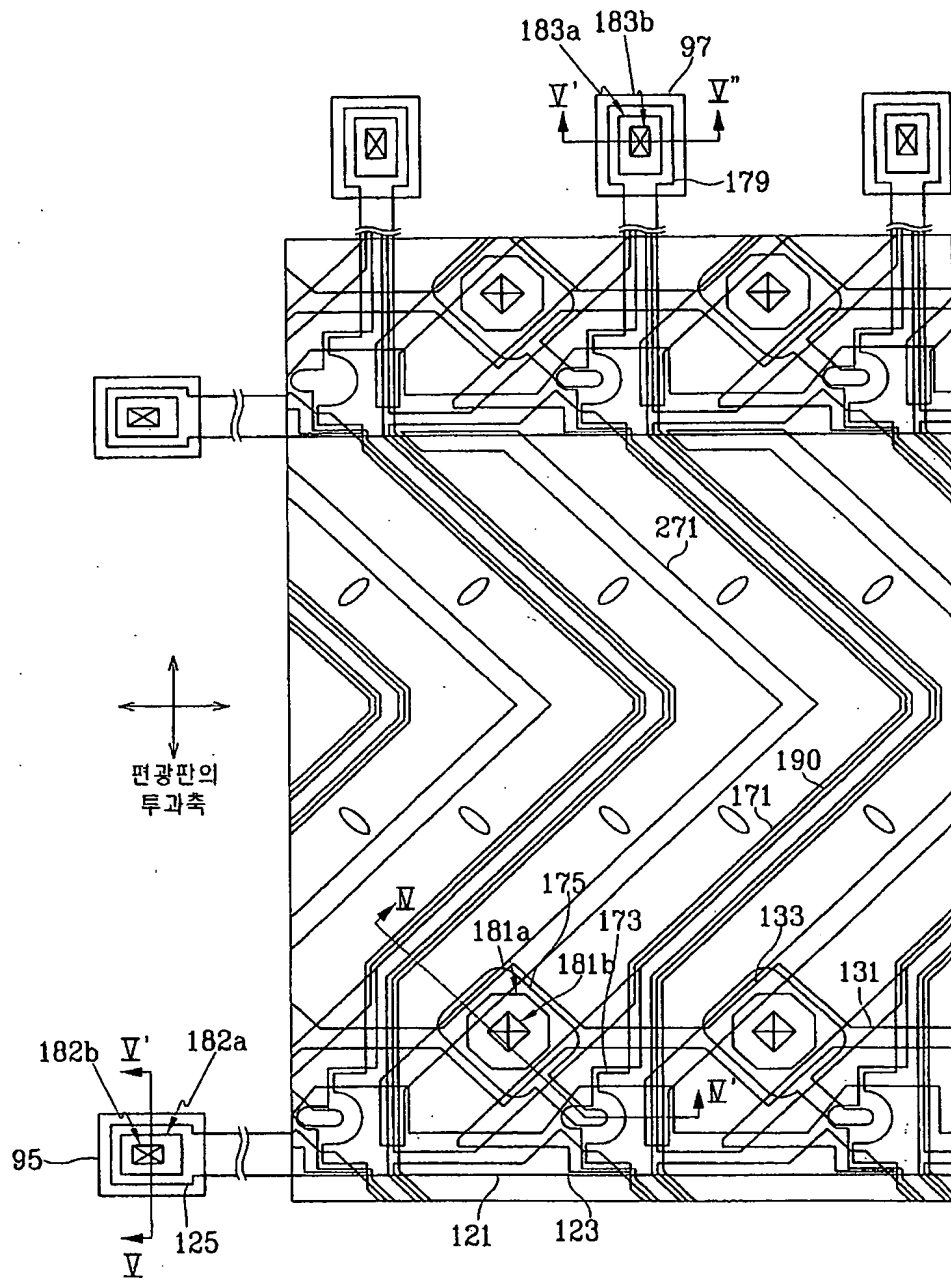


FIG.3



[illegible]

This cross-sectional view shows a semiconductor device with two gate structures. The substrate 110 is divided into two regions by a central vertical line. The left region contains a gate structure 125 with a gate dielectric 140 and a gate electrode 180. The gate electrode 180 is divided into two parts, 182a and 182b, which are separated by a gap. The gate structure 125 is formed on a layer 251, which is on top of a layer 252. The right region contains a gate structure 179 with a gate dielectric 140 and a gate electrode 180. The gate electrode 180 is divided into two parts, 183a and 183b, which are separated by a gap. The gate structure 179 is formed on a layer 791, which is on top of a layer 792. The device is bounded by vertical lines V, V', and V''.

FIG.6A

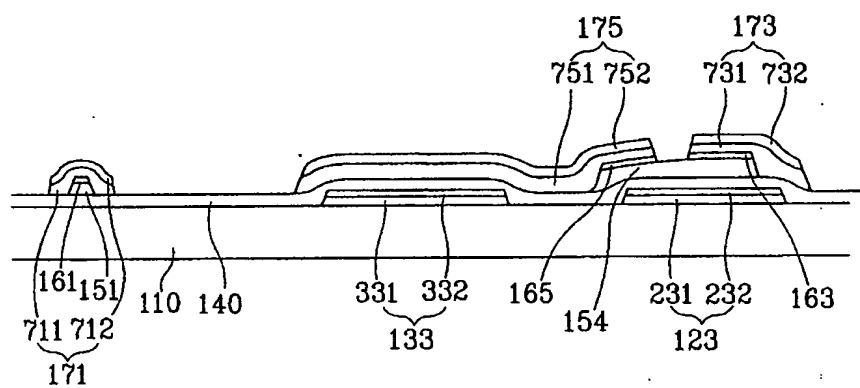


FIG.6B

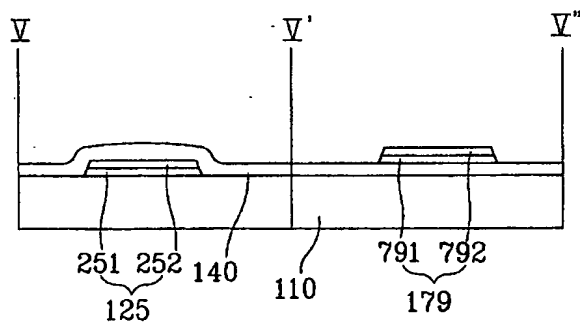


FIG. 7A

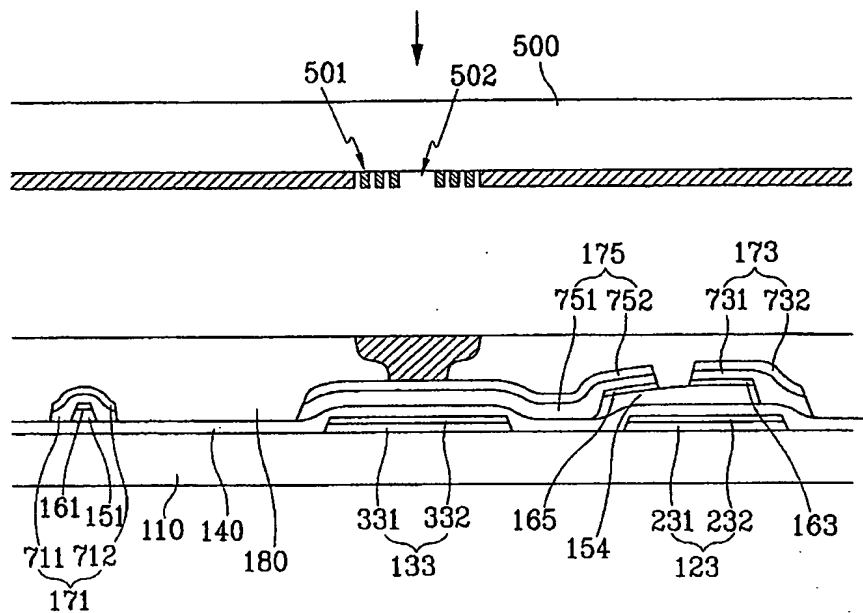


FIG. 7B

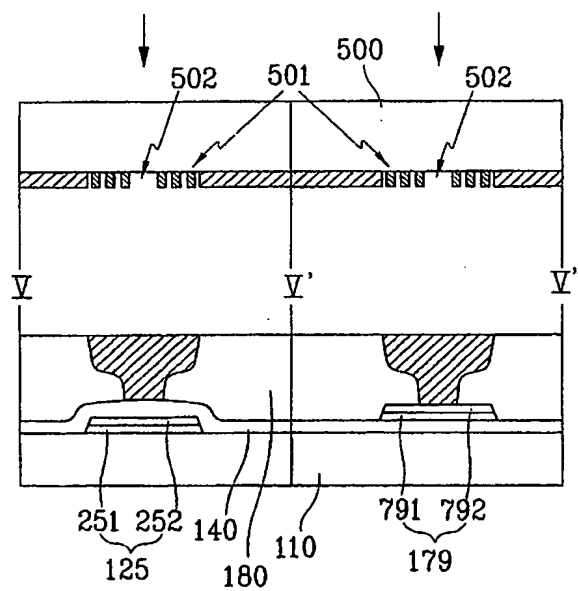


FIG.8

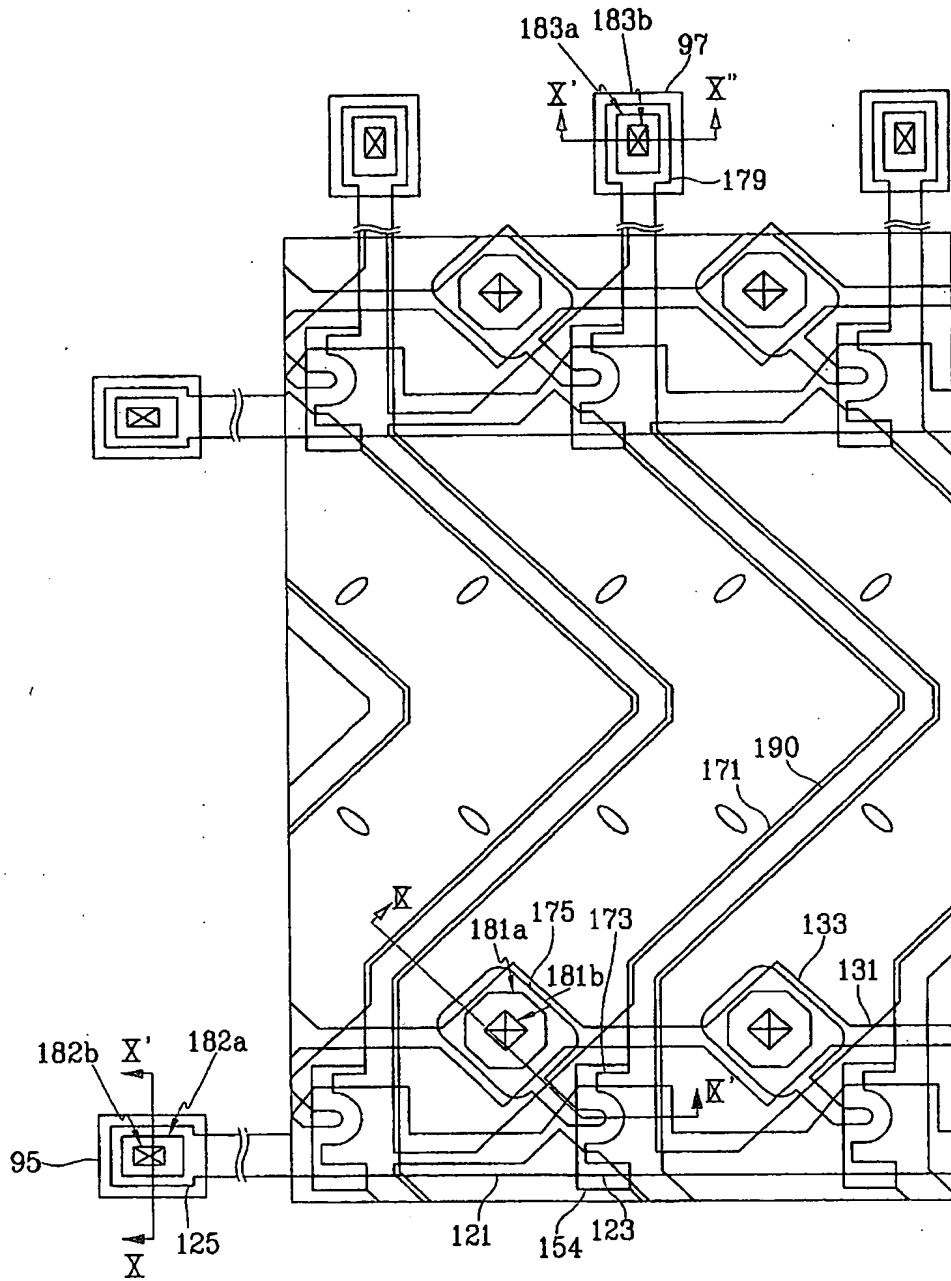


FIG.9

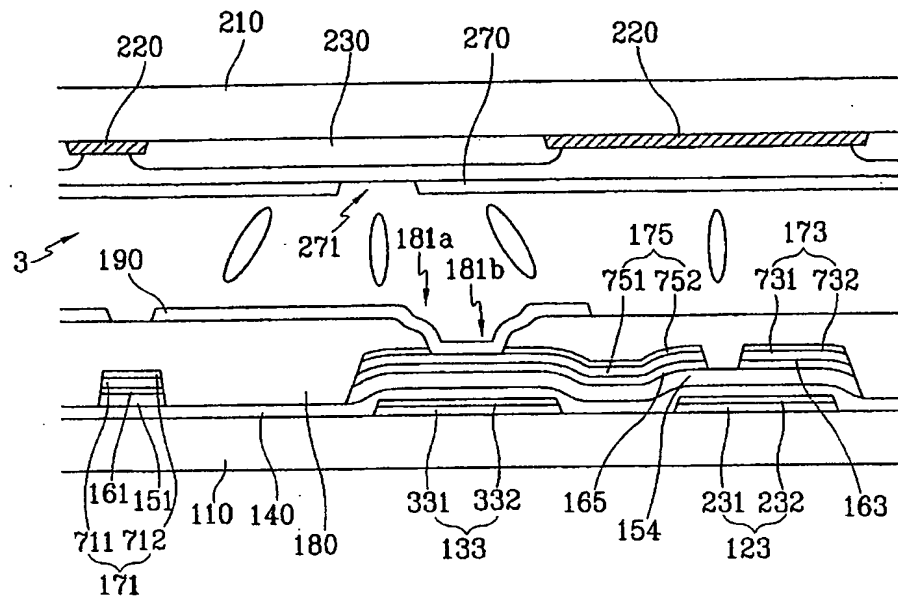


FIG.10

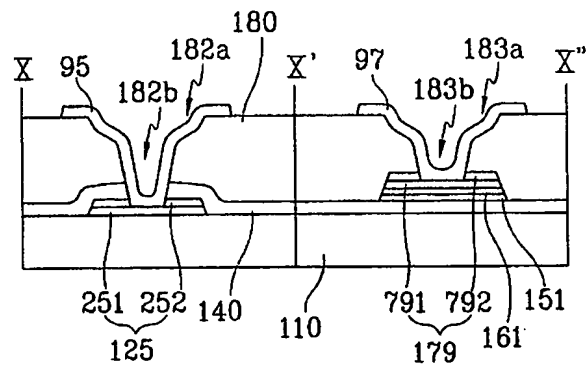




FIG.11A

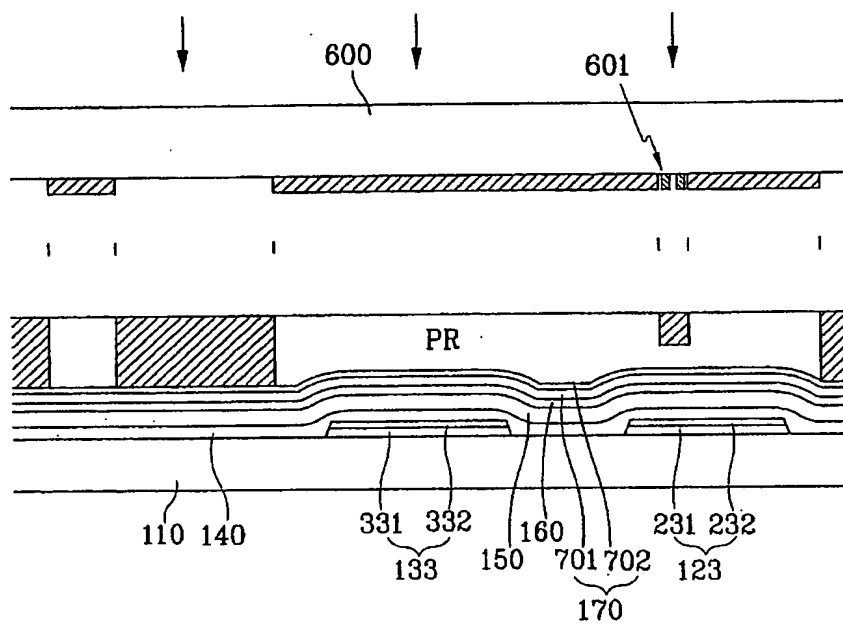


FIG.11B

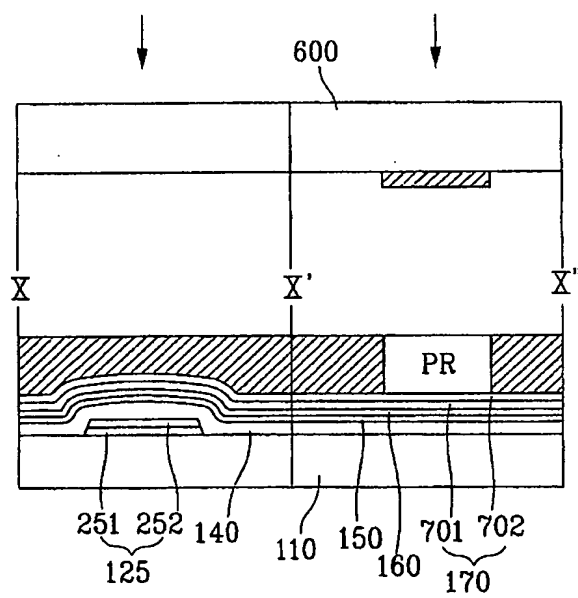


FIG.12A

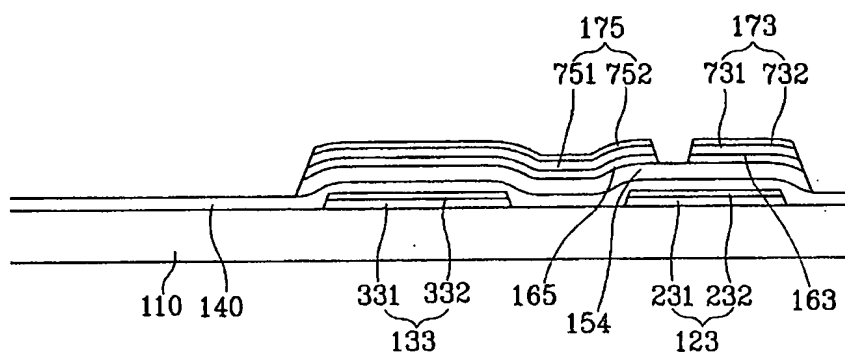


FIG.12B

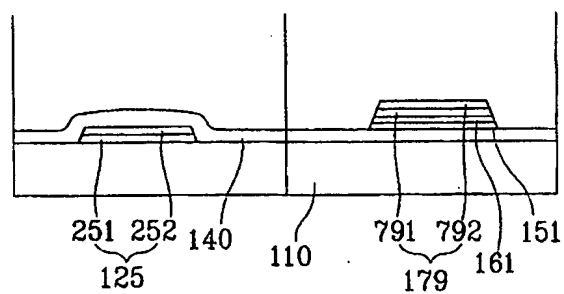


FIG.13A

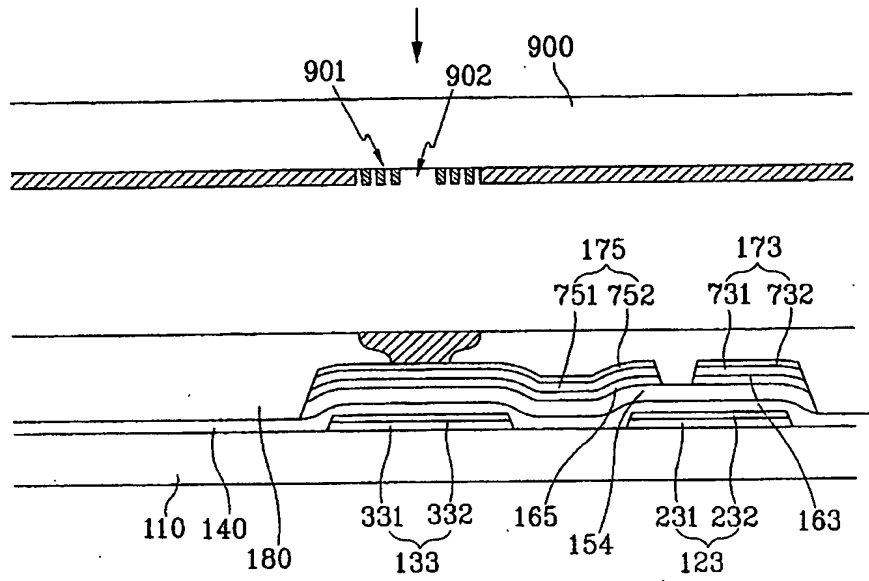


FIG.13B

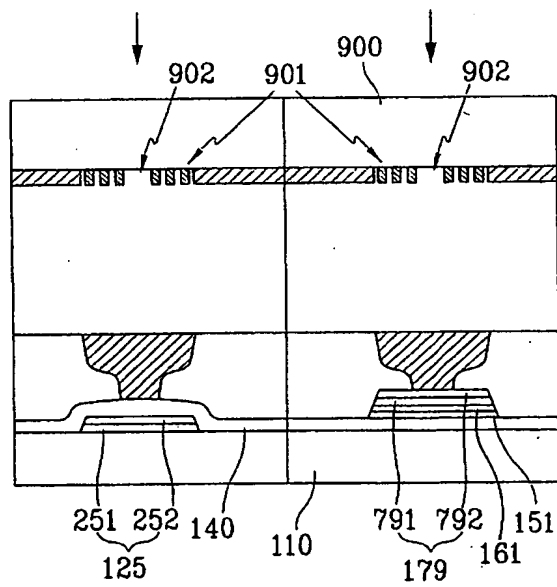


FIG.14

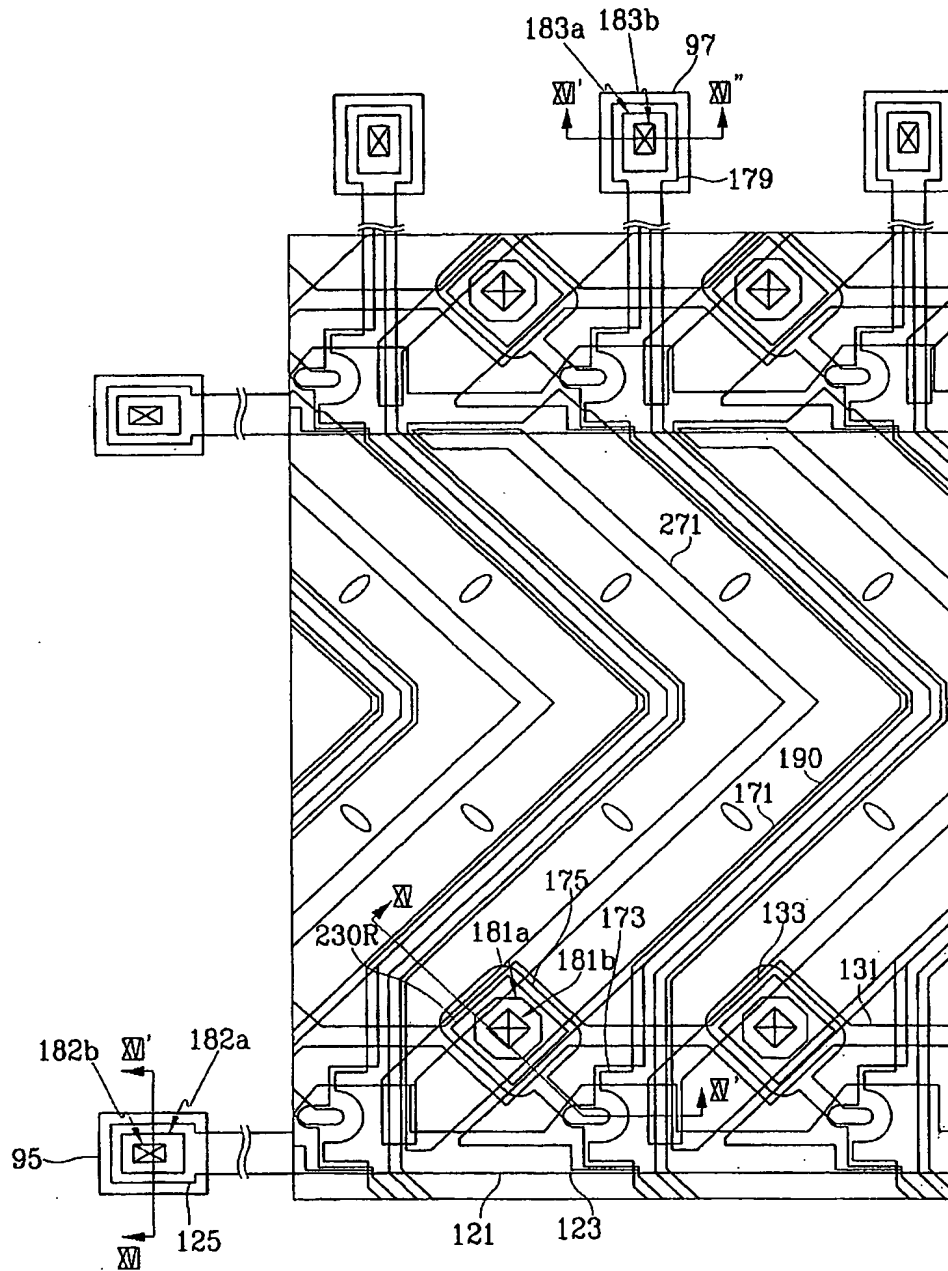


FIG.15

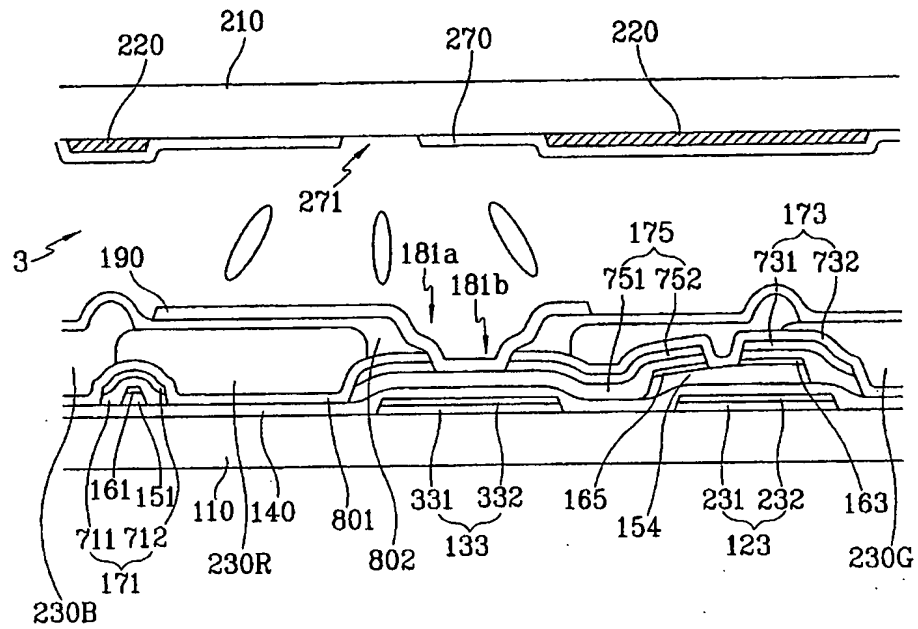


FIG.16

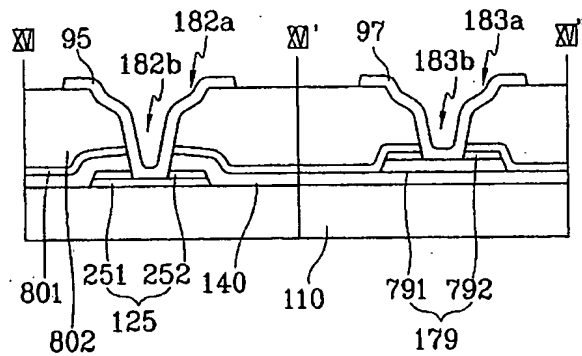


FIG.17

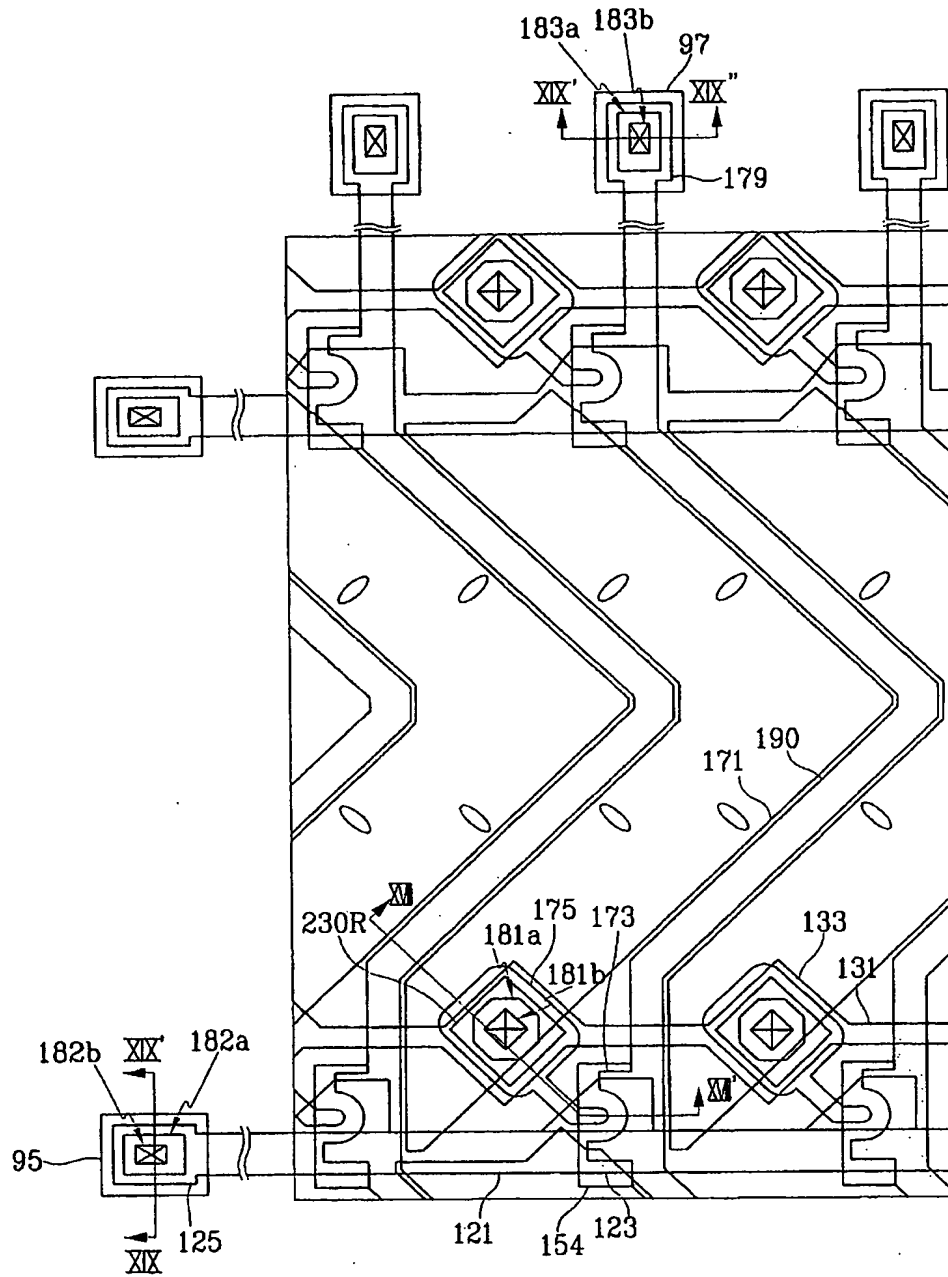


FIG.18

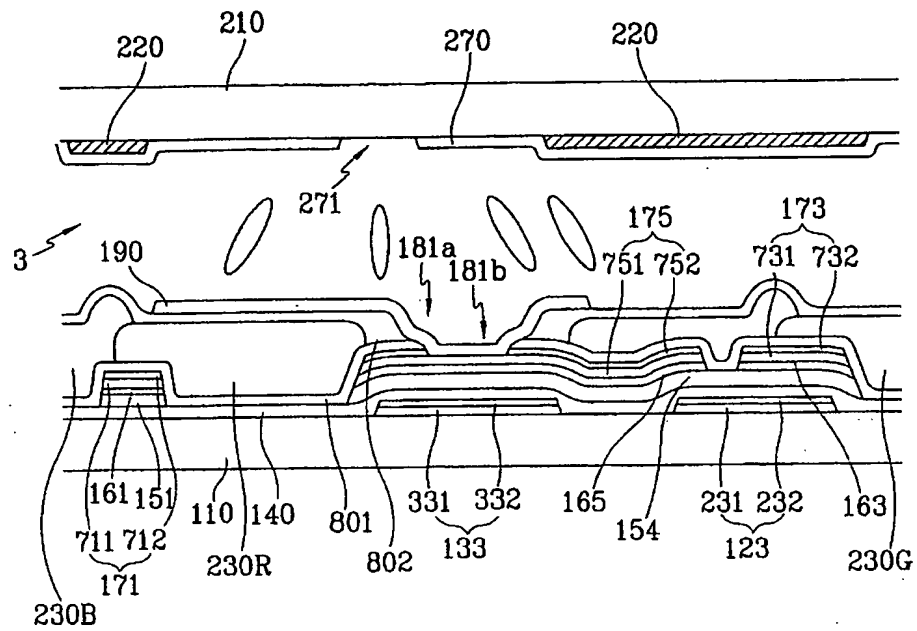
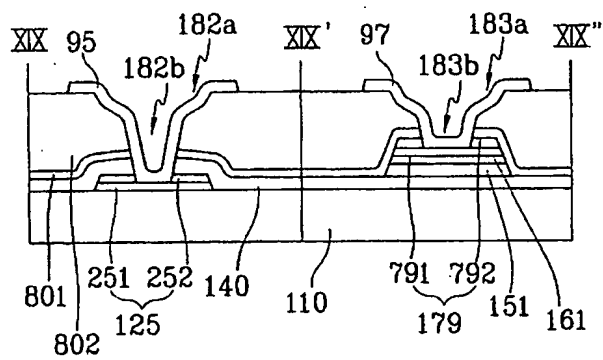


FIG.19



This cross-sectional diagram illustrates a complex layered structure. At the top, there are two horizontal layers labeled 220 and 210. Below these, a series of rectangular features are shown, some with hatched patterns. A central feature is labeled 270, and another one to its right is also labeled 220. Below these features, there are several oval-shaped elements labeled 181a and 181b. The bottom portion of the diagram shows a highly detailed stack of layers and structures. On the left, a large curved structure is labeled 190. Below it, various smaller features are labeled: 161, 151, 711, 712, 171, 110, 140, 230R, 180, 331, 332, 133, 165, 154, 231, 232, 123, 163, 230G, 173, 731, 732, 175, 751, 752. A dashed arrow points from the label 3 towards the left side of the diagram.



This cross-sectional view shows a semiconductor device with two gate structures. The first gate structure on the left includes a gate stack 182 on a gate dielectric 180, with a gate electrode 95. Below the gate stack is a channel region 140, flanked by source/drain regions 251 and 252, which are part of a substrate 125. The second gate structure on the right includes a gate stack 183 on a gate dielectric 180, with a gate electrode 97. Below the gate stack is a channel region 151, flanked by source/drain regions 791 and 792, which are part of a substrate 179. A common base layer 110 is located beneath the channel regions.

FIG.24

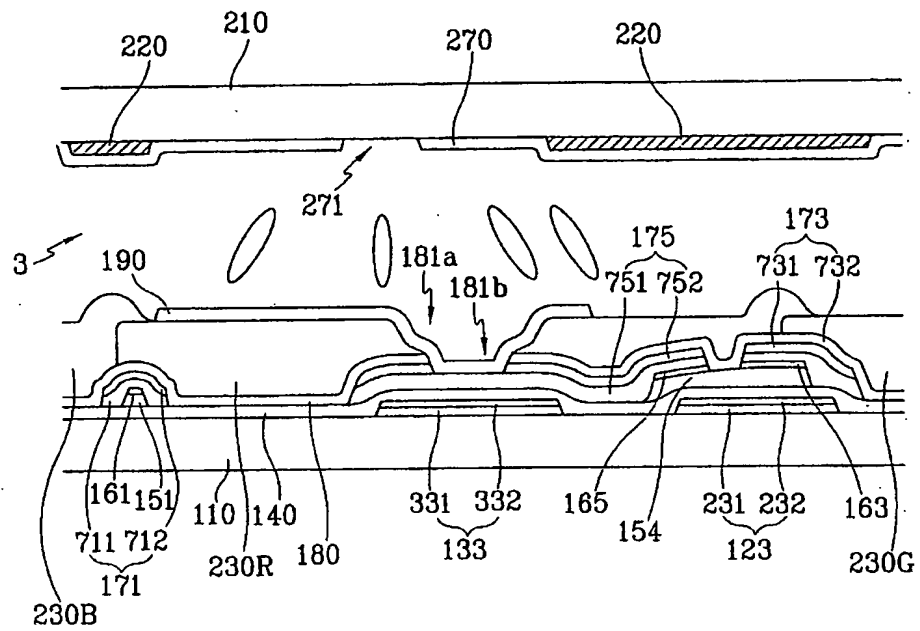


FIG.25

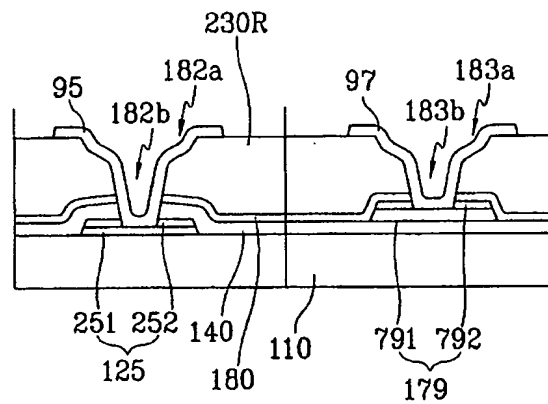


FIG.26

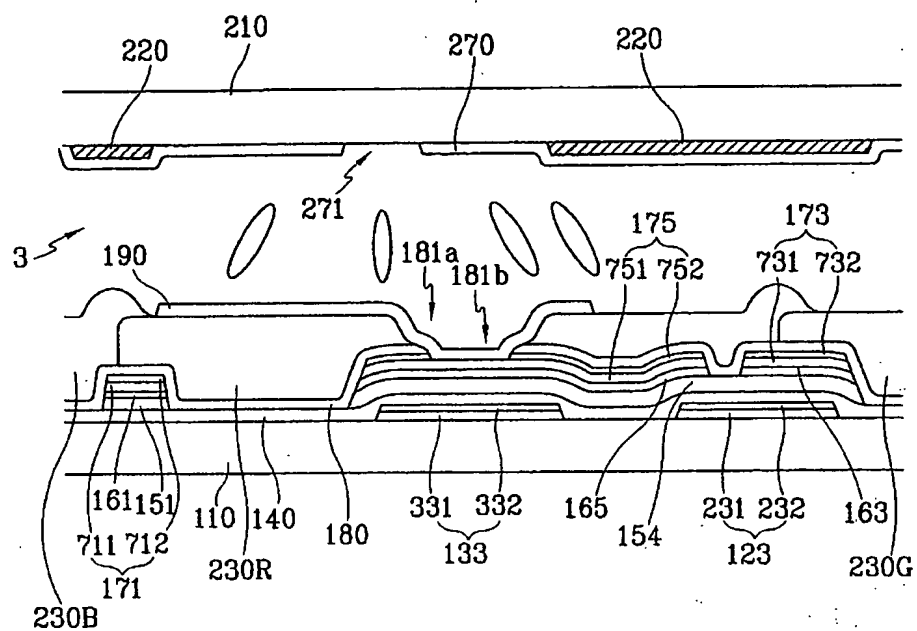


FIG.27

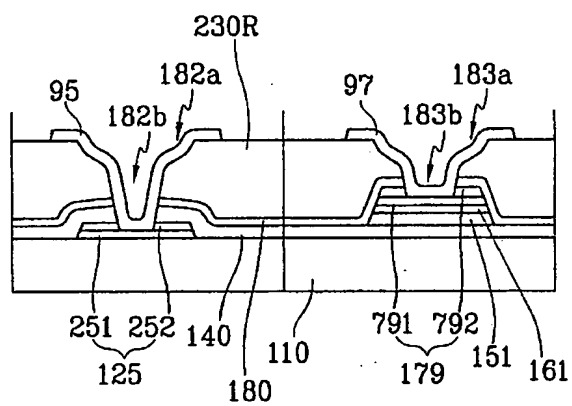


FIG.28

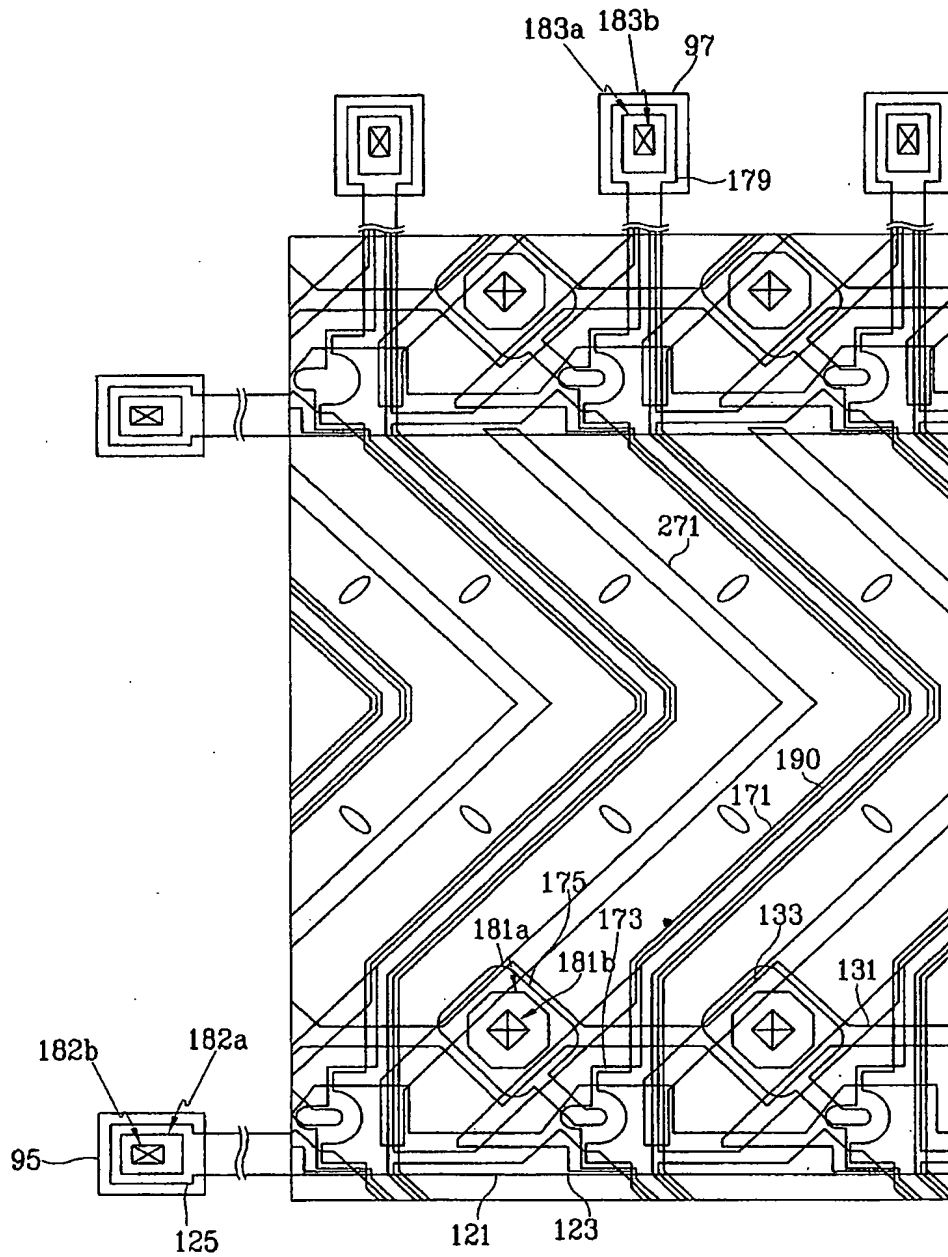


FIG.29

